

**Link Community Charter School
Grade 7 Mathematics Scope and Sequence**

	A	B	C	D	E	F	G
1	Unit and Timeline	Topic	Standards: CCSS Math	Essential Questions?	Content: What will students know?	Skills: What will students be able to do?	Texbook/ Materials/ Resources
2	Unit 1 (Q1) Operations with Fractions and Ratios and Proportions	Adding fractions, decimals and integers	7.NS.A.1, 7.NS.A.1a, 7.NS.A.1b, 7.NS.A.1c, 7.NS.A.1d, 7.NS.A.3	How do proper and improper fractions differ?	apply and extend previous understandings of operations with fractions to add rational numbers.	Describe situations in which opposite quantities combine to make 0, understand and show the location of positive and negative integers on the number line in reference to 0.	Math Course 2 , Engage New York for all units
3		Subtracting fractions	7.NS.A.1a, 7.NS.A.1b, 7.NS.A.1c, 7.NS.A.1d, 7.NS.A.3	What are rational numbers?	apply and extend previous understandings of operations with fractions to subtract rational numbers.	understand that subtracting an integer is the same as adding the opposite of a number, problem solve using adding and subtracting rational numbers	Math Course 2 , Engage New York for all units
4		Multiplying fractions	7.NS.A.2, 7.NS.A.2a, 7.NS.A.2b, 7.NS.A.2c, 7.NS.A.3	What are irrational numbers?	apply and extend previous understandings of operations with fractions to multiply rational numbers.	Use the distributive property to simplify expressions and solve equations using rational numbers.	Math Course 2 , Engage New York for all units
5		Dividing fractions	7.NS.A.2, 7.NS.A.2a, 7.NS.A.2b, 7.NS.A.2c, 7.NS.A.3	How are positive and negative integers alike and different?	apply and extend previous understandings of operations with fractions to divide rational numbers.	Estimate and predict the outcome of dividing rational numbers in real life situations. Understand the importance of converting rational numbers to decimals and percents	Math Course 2 , Engage New York for all units
6		Computing Unit rates	7.RP.A.1, 7.RP.A.2a, 7.RP.A.2b, 7.RP.A.2c, 7.RP.A.2d, 7.RP.A.3	How do you compare ratios?	Understand and analyze proportional relationships	compute unit rates associated with fractions	Math Course 2 , Engage New York for all units
7			7.RP.A.1, 7.RP.A.2a, 7.RP.A.2b, 7.RP.A.2c, 7.RP.A.2d, 7.RP.A.3	Can you use a ratio to determine the slope of a line?		Determine whether 2 quantities are in a proportional relationship	Math Course 2 , Engage New York for all units
8			7.RP.A.1, 7.RP.A.2a, 7.RP.A.2b, 7.RP.A.2c, 7.RP.A.2d, 7.RP.A.3	Why are proportions ratios?		Identify the constant of proportionality (unit rate) of a proportional relationship.	Math Course 2 , Engage New York for all units
9			7.RP.A.1, 7.RP.A.2a, 7.RP.A.2b, 7.RP.A.2c, 7.RP.A.2d, 7.RP.A.3	What methods can you use to solve ratios?		Problem solve using proportional relationships.	Math Course 2 , Engage New York for all units

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10	Unit 2 (Q2) Expressions and Equations	Generating Equivalent Expressions	7EE.A.1,7EE.A.2, 7EE.B.3,7EE.B.4	How do you simplify expression?	Solve real life and mathematical problems using numerical and algebraic expressions and equations	Apply properties of operations to solve equations and simplify expressions	Math Course 2 , Engage New York for all units
11			7EE.A.1,7EE.A.2, 7EE.B.3,7EE.B.4	Does simplifying an expression create an equivalent expression?	Use properties of operations to generate equivalent expressions?	Rewrite expressions to show how quantities are related.	Math Course 2 , Engage New York for all units
12			7EE.A.1,7EE.A.2, 7EE.B.3,7EE.B.4	What is an equivalent expression?		Solve multi-step real life and mathematical problems	Math Course 2 , Engage New York for all units
13			7EE.A.1,7EE.A.2, 7EE.B.3,7EE.B.4	How do you know that you have created an equivalent simplified expression?		Construct and solve variable equations and inequalities Identify the sequence of operations used to solve equations Graph functions and inequalities	Math Course 2 , Engage New York for all units
14	Unit 3 (Q3) Geometry	geometric figures	7.G.A.1, 7.G.A.2, 7.G.A.3, 7.G.A.4, 7.G.A.5, 7.G.A.6	What is scale drawing?	Drawing and describing the relationships between geometrical figures	Solve multi-step real life and mathematical problems involving scale drawings	Math Course 2 , Engage New York for all units
15		angle measures	7.G.A.1, 7.G.A.2, 7.G.A.3, 7.G.A.4, 7.G.A.5, 7.G.A.6	How do you classify angles?	Constructing geometric figures	Draw geometric figures with given conditions	Math Course 2 , Engage New York for all units
16		area	7.G.A.1, 7.G.A.2, 7.G.A.3, 7.G.A.4, 7.G.A.5, 7.G.A.6	Can you determine the relationship between complementary, supplementary, vertical and adjacent angles	Calculating Angle measures	Describe 2 dimensional figures that result from slicing a 3-dimensional figure	Math Course 2 , Engage New York for all units
17		perimeter	7.G.A.1, 7.G.A.2, 7.G.A.3, 7.G.A.4, 7.G.A.5, 7.G.A.6	What is the difference between area and surface area and perimeter?	calculating area and perimeter of 2-dimensional figures	know formulas for calculating area and circumference of a circle and calculate area and circumference	Math Course 2 , Engage New York for all units
18		surface area	7.G.A.1, 7.G.A.2, 7.G.A.3, 7.G.A.4, 7.G.A.5, 7.G.A.6		Calculating and solving real life problems involving surface area and volume	Write and solve equations for unknown angles.	Math Course 2 , Engage New York for all units

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19		volume	7.G.A.1, 7.G.A.2, 7.G.A.3, 7.G.A.4, 7.G.A.5, 7.G.A.6			Solve multi-step real life and mathematical problems involving volume, area and surface area.	Math Course 2 , Engage New York for all units
20	Unit 4 (Q4) Statistics and Probability	Random sampling	7.SP.A.1, 7.SP.A.2	What is probability?	Use random sampling to draw inferences about a population	Use statistical information to gain information about a population	Math Course 2 , Engage New York for all units
21		Informal inferences	7.SP.B.3, 7.SP.B.4	What is an inference?	Draw informal inferences about 2 populations	Examine generalizations about a population and make conclusions.	Math Course 2 , Engage New York for all units
22		Probability	7.SP.C.5, 7.SP.C.6, 7.SP.C.7, 7.SP.C.8	How are combinations similar to and different from permutations?	Investigate chance processes.	Use mean , median and mode to make inferences about populations	Math Course 2 , Engage New York for all units
23			7.SP.C.5, 7.SP.C.6, 7.SP.C.7, 7.SP.C.9	What determines whether or not a sample is biased?	Develop, use and evaluate probability models	Define and determine mean absolute deviation of populations of people , teams and other groups. Develop a probability model and calculate probabilities of compound events	Math Course 2 , Engage New York for all units